



PATENT APPLICATION

File No: 00-56

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Wayne R. Kindsvogel, Stavros Topouzis
Serial No. : 09/925,055
Group Art Unit : 1644
Examiner :
Filed : August 8, 2001
For : SOLUBLE ZCYTOR11 CYTOKINE RECEPTORS
Date Submitted : October 15, 2001

RESPONSE TO NOTICE TO FILE MISSING PARTS

Box Missing Parts
Commissioner for Patents
Washington, DC 20231

Sir:

Respectfully submitted herewith is the Combined Declaration and Power of Attorney signed and dated by Applicants for the above-captioned application. This submission is in response to the Notice to File Missing Parts dated October 4, 2001 (a copy thereof is attached hereto) and is being filed within two months of the date of the letter.

Also submitted herewith are a corrected sequence listing and a substitute sequence listing diskette. This submission is in response to the aforementioned Notice to File Missing Parts dated October 4, 2001.

In each case the sequences were designated "Artificial Sequence." Explanation of the source of genetic material is required (sections <220> to <223>), but was mistakenly omitted. The changes, per the Sequence Listing Error Summary, Item 11, (attached to Notice to File Missing Parts dated October 4, 2001), were made in accordance with the sequence listing rule 37 CFR §1.823, and with support in the originally filed application as follows:

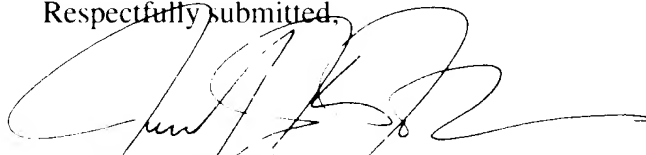
- SEQ ID NO. 30 – Supported in SEQ ID NO. 29

These changes are supported in the originally filed application and hence include no new matter.

The content of the above-captioned application and the computer readable copy is the same and, where applicable, includes no new matter as required by 37 CFR 1.821-1.825.

Applicants claim small entity status. Please charge the total fee, estimated to be \$65.00, to ZymoGenetics, Inc., Deposit Account No. 26-0290. A duplicate of this sheet is enclosed.

Respectfully submitted,



Jennifer K. Johnson, J.D.
Registration No. 43,696



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

| APPLICATION NUMBER | FILING/RECEIPT DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NUMBER |
|--------------------|---------------------|-----------------------|------------------------|
| 09/925,055 | 08/08/2001 | Wayne R. Kindsvogel | 00-56 |

CONFIRMATION NO. 2607

FORMALITIES LETTER



OC00000006842991

ZymoGenetics, Inc
1201 Eastlake Avenue East
Seattle, WA 98102

Date Mailed: 10/04/2001

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is unsigned.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- **The balance due by applicant is \$ 65.**
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

A copy of this notice MUST be returned with the reply.

[Handwritten signature]

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



PATENT APPLICATION

File No: 00-56

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Wayne R. Kindsvogel, Stavros Topouzis
Serial No. : 09/925,055
Group Art Unit : 1644
Examiner :
Filed : August 8, 2001
For : SOLUBLE ZCYTOR11 CYTOKINE RECEPTORS

CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

Box Missing Parts
Commissioner for Patents
Washington, DC 20231

Sir:

I hereby certify that the attached correspondence comprising:

1. Return Postcard
2. Response to Notice to File Missing Parts (in duplicate)
3. Copy of Notice to File Missing Parts
4. Executed Combined Declaration and Power of Attorney
5. Sequence Listing Diskette compliant with 37 CFR 1.821-1.825
6. Paper Copy of Sequence Listing

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

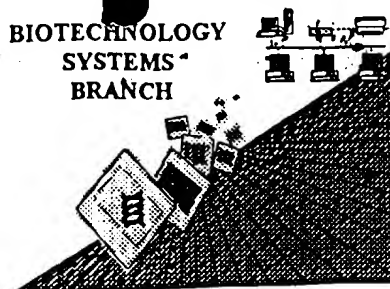
Box Missing Parts
Commissioner for Patents
Washington, DC 20231

on October 15, 2001.

Marianne Carello
Marianne Carello

RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/925,055
Source: OIPK
Date Processed by STIC: 08/16/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

| ERROR DETECTED | SUGGESTED CORRECTION |
|----------------|----------------------|
|----------------|----------------------|

SERIAL NUMBER: 09/925,055

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- | | |
|--|--|
| 1 _____ | <p>Wrapped Nucleic Acid Sequences The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."</p> |
| 2 _____ | <p>Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.</p> |
| 3 _____ | <p>Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.</p> |
| 4 _____ | <p>Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.</p> |
| 5 _____ | <p>Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.</p> |
| 6 _____ | <p>PatentIn 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.</p> |
| 7 _____ | <p>Skipped Sequences (OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped</p> <p>Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.</p> |
| 8 _____ | <p>Skipped Sequences (NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000</p> |
| 9 _____ | <p>Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.</p> |
| 10 _____ | <p>Invalid <213> Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence</p> |
| 11 <input checked="" type="checkbox"/> | <p>Use of <220> Sequence(s) <u>30</u> missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)</p> |
| 12 _____ | <p>PatentIn 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.</p> |

AMC – Biotechnology Systems Branch – 06/04/2001

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001

TIME: 13:28:58

Input Set : A:\00-56.txt

Output Set: N:\CRF3\08162001\I925055.raw

Does Not Comply
Corrected Diskette Needed

4 <110> APPLICANT: Kindsvogel, Wayne R.
 5 Topouzis, Stavros
 7 <120> TITLE OF INVENTION: SOLUBLE ZCYTOR11 CYTOKINE RECEPTORS
 9 <130> FILE REFERENCE: 00-56
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/925,055
 C--> 11 <141> CURRENT FILING DATE: 2001-08-08
 11 <150> PRIOR APPLICATION NUMBER: US 60/223,827
 12 <151> PRIOR FILING DATE: 2000-08-08
 14 <150> PRIOR APPLICATION NUMBER: US 60/250,876
 15 <151> PRIOR FILING DATE: 2000-12-01
 17 <160> NUMBER OF SEQ ID NOS: 35
 19 <170> SOFTWARE: FastSEQ for Windows Version 3.0
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 2831
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Homo sapien
 26 <220> FEATURE:
 27 <221> NAME/KEY: CDS
 28 <222> LOCATION: (34)...(1755)
 30 <400> SEQUENCE: 1
 31 tagaggccaa gggagggctc tgtgccagcc ccg atg agg acg ctg ctg acc atc 54
 32 Met Arg Thr Leu Leu Thr Ile
 33 1 5
 35 ttg act gtg gga tcc ctg gct gct cac gcc cct gag gac ccc tcg gat 102
 36 Leu Thr Val Gly Ser Leu Ala Ala His Ala Pro Glu Asp Pro Ser Asp
 37 10 15 20
 39 ctg ctc cag cac gtg aaa ttc cag tcc agc aac ttt gaa aac atc ctg 150
 40 Leu Leu Gln His Val Lys Phe Gln Ser Ser Asn Phe Glu Asn Ile Leu
 41 25 30 35
 43 acg tgg gac agc ggg cca gag ggc acc cca gac acg gtc tac agc atc 198
 44 Thr Trp Asp Ser Gly Pro Glu Gly Thr Pro Asp Thr Val Tyr Ser Ile
 45 40 45 50 55
 47 gag tat aag acg tac gga gag agg gac tgg gtg gca aag aag ggc tgt 246
 48 Glu Tyr Lys Thr Tyr Gly Glu Arg Asp Trp Val Ala Lys Lys Gly Cys
 49 60 65 70
 51 cag cgg atc acc cgg aag tcc tgc aac ctg acg gtg gag acg ggc aac 294
 52 Gln Arg Ile Thr Arg Lys Ser Cys Asn Leu Thr Val Glu Thr Gly Asn
 53 75 80 85
 55 ctc acg gag ctc tac tat gcc agg gtc acc gct gtc agt gcg gga ggc 342
 56 Leu Thr Glu Leu Tyr Tyr Ala Arg Val Thr Ala Val Ser Ala Gly Gly
 57 90 95 100
 59 cgg tca gcc acc aag atg act gac agg ttc agc tct ctg cag cac act 390
 60 Arg Ser Ala Thr Lys Met Thr Asp Arg Phe Ser Ser Leu Gln His Thr
 61 105 110 115
 63 acc ctc aag cca cct gat gtg acc tgt atc tcc aaa gtg aga tcg att 438
 64 Thr Leu Lys Pro Pro Asp Val Thr Cys Ile Ser Lys Val Arg Ser Ile
 65 120 125 130 135

Errored
 Check diskette
 8/16/01

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001

TIME: 13:28:58

Input Set : A:\00-56.txt

Output Set : N:\CRF3\08162001\I925055.raw

| | | |
|-----|---|------|
| 67 | cag atg att gtt cat cct acc ccc acg cca atc cgt gca ggc gat ggc | 486 |
| 68 | Gln Met Ile Val His Pro Thr Pro Thr Pro Ile Arg Ala Gly Asp Gly | |
| 69 | 140 145 150 | |
| 71 | cac cgg cta acc ctg gaa gac atc ttc cat gac ctg ttc tac cac tta | 534 |
| 72 | His Arg Leu Thr Leu Glu Asp Ile Phe His Asp Leu Phe Tyr His Leu | |
| 73 | 155 160 165 | |
| 75 | gag ctc cag gtc aac cgc acc tac caa atg cac ctt gga ggg aag cag | 582 |
| 76 | Glu Leu Gln Val Asn Arg Thr Tyr Gln Met His Leu Gly Gly Lys Gln | |
| 77 | 170 175 180 | |
| 79 | aga gaa tat gag ttc ttc ggc ctg acc cct gac aca gag ttc ctt ggc | 630 |
| 80 | Arg Glu Tyr Glu Phe Phe Gly Leu Thr Pro Asp Thr Glu Phe Leu Gly | |
| 81 | 185 190 195 | |
| 83 | acc atc atg att tgc gtt ccc acc tgg gcc aag gag agt gcc ccc tac | 678 |
| 84 | Thr Ile Met Ile Cys Val Pro Thr Trp Ala Lys Glu Ser Ala Pro Tyr | |
| 85 | 200 205 210 215 | |
| 87 | atg tgc cga gtg aag aca ctg cca gac cgg aca tgg acc tac tcc ttc | 726 |
| 88 | Met Cys Arg Val Lys Thr Leu Pro Asp Arg Thr Trp Thr Tyr Ser Phe | |
| 89 | 220 225 230 | |
| 91 | tcc gga gcc ttc ctg ttc tcc atg ggc ttc ctc gtc gca gta ctc tgc | 774 |
| 92 | Ser Gly Ala Phe Leu Phe Ser Met Gly Phe Leu Val Ala Val Leu Cys | |
| 93 | 235 240 245 | |
| 95 | tac ctg agc tac aga tat gtc acc aag ccg cct gca cct ccc aac tcc | 822 |
| 96 | Tyr Leu Ser Tyr Arg Tyr Val Thr Lys Pro Pro Ala Pro Pro Asn Ser | |
| 97 | 250 255 260 | |
| 99 | ctg aac gtc cag cga gtc ctg act ttc cag ccg ctg cgc ttc atc cag | 870 |
| 100 | Leu Asn Val Gln Arg Val Leu Thr Phe Gln Pro Leu Arg Phe Ile Gln | |
| 101 | 265 270 275 | |
| 103 | gag cac gtc ctg atc cct gtc ttt gac ctc agc ggc ccc agc agt ctg | 918 |
| 104 | Glu His Val Leu Ile Pro Val Phe Asp Leu Ser Gly Pro Ser Ser Leu | |
| 105 | 280 285 290 295 | |
| 107 | gcc cag cct gtc cag tac tcc cag atc agg gtg tct gga ccc agg gag | 966 |
| 108 | Ala Gln Pro Val Gln Tyr Ser Gln Ile Arg Val Ser Gly Pro Arg Glu | |
| 109 | 300 305 310 | |
| 111 | ccc gca gga gct cca cag cgg cat agc ctg tcc gag atc acc tac tta | 1014 |
| 112 | Pro Ala Gly Ala Pro Gln Arg His Ser Leu Ser Glu Ile Thr Tyr Leu | |
| 113 | 315 320 325 | |
| 115 | ggg cag cca gac atc tcc atc ctc cag ccc tcc aac gtg cca cct ccc | 1062 |
| 116 | Gly Gln Pro Asp Ile Ser Ile Leu Gln Pro Ser Asn Val Pro Pro Pro | |
| 117 | 330 335 340 | |
| 119 | cag atc ctc tcc cca ctg tcc tat gcc cca aac gct gcc cct gag gtc | 1110 |
| 120 | Gln Ile Leu Ser Pro Leu Ser Tyr Ala Pro Asn Ala Ala Pro Glu Val | |
| 121 | 345 350 355 | |
| 123 | ggg ccc cca tcc tat gca cct cag gtg acc ccc gaa gct caa ttc cca | 1158 |
| 124 | Gly Pro Pro Ser Tyr Ala Pro Gln Val Thr Pro Glu Ala Gln Phe Pro | |
| 125 | 360 365 370 375 | |
| 127 | ttc tac gcc cca cag gcc atc tct aag gtc cag cct tcc tcc tat gcc | 1206 |
| 128 | Phe Tyr Ala Pro Gln Ala Ile Ser Lys Val Gln Pro Ser Ser Tyr Ala | |
| 129 | 380 385 390 | |
| 131 | cct caa gcc act ccg gac agc tgg cct ccc tcc tat ggg gta tgc atg | 1254 |

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001

TIME: 13:28:58

Input Set : A:\00-56.txt

Output Set : N:\CRF3\08162001\I925055.raw

| | | | | | | | | | | | | | | | | | |
|-----|-------------|------------|------------|------------|------------|-------------|-----|------------|------------|------------|-----|-----|-----|-----|-----|-----|------|
| 132 | Pro | Gln | Ala | Thr | Pro | Asp | Ser | Trp | Pro | Pro | Ser | Tyr | Gly | Val | Cys | Met | |
| 133 | | | | 395 | | | | | 400 | | | | | 405 | | | |
| 135 | gaa | ggt | tct | ggc | aaa | gac | tcc | ccc | act | ggg | aca | ctt | tct | agt | cct | aaa | 1302 |
| 136 | Glu | Gly | Ser | Gly | Lys | Asp | Ser | Pro | Thr | Gly | Thr | Leu | Ser | Ser | Pro | Lys | |
| 137 | | | 410 | | | | | 415 | | | | | 420 | | | | |
| 139 | cac | ctt | agg | cct | aaa | ggt | cag | ctt | cag | aaa | gag | cca | cca | gct | gga | agc | 1350 |
| 140 | His | Leu | Arg | Pro | Lys | Gly | Gln | Leu | Gln | Lys | Glu | Pro | Pro | Ala | Gly | Ser | |
| 141 | | 425 | | | | | 430 | | | | | 435 | | | | | |
| 143 | tgc | atg | tta | ggt | ggc | ctt | tct | ctg | cag | gag | gtg | acc | tcc | ttg | gct | atg | 1398 |
| 144 | Cys | Met | Leu | Gly | Gly | Leu | Ser | Leu | Gln | Glu | Val | Thr | Ser | Leu | Ala | Met | |
| 145 | 440 | | | | 445 | | | | | 450 | | | | | | 455 | |
| 147 | gag | gaa | tcc | caa | gaa | gca | aaa | tca | ttg | cac | cag | ccc | ctg | ggg | att | tgc | 1446 |
| 148 | Glu | Glu | Ser | Gln | Glu | Ala | Lys | Ser | Leu | His | Gln | Pro | Leu | Gly | Ile | Cys | |
| 149 | | | | 460 | | | | | 465 | | | | | 470 | | | |
| 151 | aca | gac | aga | aca | tct | gac | cca | aat | gtg | cta | cac | agt | ggg | gag | gaa | ggg | 1494 |
| 152 | Thr | Asp | Arg | Thr | Ser | Asp | Pro | Asn | Val | Leu | His | Ser | Gly | Glu | Glu | Gly | |
| 153 | | | 475 | | | | | | 480 | | | | | 485 | | | |
| 155 | aca | cca | cag | tac | cta | aag | ggc | cag | ctc | ccc | ctc | ctc | tcc | tca | gtc | cag | 1542 |
| 156 | Thr | Pro | Gln | Tyr | Leu | Lys | Gly | Gln | Leu | Pro | Leu | Leu | Ser | Ser | Val | Gln | |
| 157 | | | 490 | | | | | 495 | | | | | 500 | | | | |
| 159 | atc | gag | ggc | cac | ccc | atg | tcc | ctc | cct | ttg | caa | cct | cct | tcc | ggt | cca | 1590 |
| 160 | Ile | Glu | Gly | His | Pro | Met | Ser | Leu | Pro | Leu | Gln | Pro | Pro | Ser | Gly | Pro | |
| 161 | | 505 | | | | 510 | | | | | 515 | | | | | | |
| 163 | tgt | tcc | ccc | tcg | gac | caa | ggt | cca | agt | ccc | tgg | ggc | ctg | ctg | gag | tcc | 1638 |
| 164 | Cys | Ser | Pro | Ser | Asp | Gln | Gly | Pro | Ser | Pro | Trp | Gly | Leu | Leu | Glu | Ser | |
| 165 | 520 | | | | 525 | | | | | 530 | | | | | | 535 | |
| 167 | ctt | gtg | tgt | ccc | aag | gat | gaa | gcc | aag | agc | cca | gcc | cct | gag | acc | tca | 1686 |
| 168 | Leu | Val | Cys | Pro | Lys | Asp | Glu | Ala | Lys | Ser | Pro | Ala | Pro | Glu | Thr | Ser | |
| 169 | | | | 540 | | | | | 545 | | | | | 550 | | | |
| 171 | gac | ctg | gag | cag | ccc | aca | gaa | ctg | gat | tct | ctt | ttc | aga | ggc | ctg | gcc | 1734 |
| 174 | Asp | Leu | Glu | Gln | Pro | Thr | Glu | Leu | Asp | Ser | Leu | Phe | Arg | Gly | Leu | Ala | |
| 175 | | | 555 | | | | | 560 | | | | | 565 | | | | |
| 177 | ctg | act | gtg | cag | tgg | gag | tcc | tgaggggaat | gggaaaggct | tggtgcttcc | | | | | | | 1785 |
| 178 | Leu | Thr | Val | Gln | Trp | Glu | Ser | | | | | | | | | | |
| 179 | | | 570 | | | | | | | | | | | | | | |
| 181 | tccctgtccc | taccagtg | gacatccttg | gctgtcaatc | ccatgcctgc | ccatgcacaca | | | | | | | | | | | 1845 |
| 182 | cactctgcga | tctggcctca | gacgggtgcc | cttgagagaa | gcagagggag | tggcatgcag | | | | | | | | | | | 1905 |
| 183 | ggccccctgcc | atgggtgcgc | tctcaccgg | aacaaagcag | catgataagg | actgcagcgg | | | | | | | | | | | 1965 |
| 184 | gggagctctg | gggagcagct | tgtgtagaca | agcgcgtgct | cgctgagccc | tgcaaggcag | | | | | | | | | | | 2025 |
| 185 | aaatgacagt | gcaaggagga | aatgcaggga | aactcccag | gtccagagcc | ccacctccta | | | | | | | | | | | 2085 |
| 186 | acaccatgga | ttcaaagtgc | tcagggaatt | tgcctctcct | tgccccattc | ctggccagtt | | | | | | | | | | | 2145 |
| 187 | tcacaatcta | gctcgacaga | gcatgaggcc | cctgcctctt | ctgtcattgt | tcaaaggtgg | | | | | | | | | | | 2205 |
| 188 | gaagagagcc | tggaaaagaa | ccaggcctgg | aaaagaacca | gaaggaggct | gggcagaacc | | | | | | | | | | | 2265 |
| 189 | agaacaacct | gcacttctgc | caaggccagg | gccagcagga | cggcaggact | ctagggaggg | | | | | | | | | | | 2325 |
| 190 | gtgtggcctg | cagctcattc | ccagccaggg | caactgcctg | acgttgcaag | atttcagctt | | | | | | | | | | | 2385 |
| 191 | cattcctctg | atagaacaaa | gcgaaatgca | ggtccaccag | ggagggagac | acacaagcct | | | | | | | | | | | 2445 |
| 192 | tttctgcagg | caggagtctc | agaccctatc | ctgagaatgg | ggtttgaaag | gaaggtgagg | | | | | | | | | | | 2505 |
| 193 | gctgtggccc | ctggacgggt | acaataacac | actgtactga | tgtcacaact | ttgcaagctc | | | | | | | | | | | 2565 |
| 194 | tgccttggtg | tcagcccatc | tgggctcaaa | tccagcctc | accactcaca | agctgtgtga | | | | | | | | | | | 2625 |

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001

TIME: 13:28:58

Input Set : A:\00-56.txt

Output Set: N:\CRF3\08162001\I925055.raw

```

195 cttcaaacaa atgaaatcag tgcccagaac ctccggtttcc tcattctgtaa tgtgggggatc 2685
196 ataacaccta cctcatggag ttgtggtgaa gatgaaatga agtcatgtct ttaaagtgtc 2745
197 taatagtgcc tggtagatgg gcagtgccca ataaacggtg gctattttaaa aaaaaaaaaa 2805
198 aaaaaaaaaa atagcggccg cctcga 2831
200 <210> SEQ ID NO: 2
201 <211> LENGTH: 574
202 <212> TYPE: PRT
203 <213> ORGANISM: Homo sapien
205 <400> SEQUENCE: 2
206 Met Arg Thr Leu Leu Thr Ile Leu Thr Val Gly Ser Leu Ala Ala His
207 1 5 10 15
208 Ala Pro Glu Asp Pro Ser Asp Leu Leu Gln His Val Lys Phe Gln Ser
209 20 25 30
210 Ser Asn Phe Glu Asn Ile Leu Thr Trp Asp Ser Gly Pro Glu Gly Thr
211 35 40 45
212 Pro Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr Gly Glu Arg Asp
213 50 55 60
214 Trp Val Ala Lys Lys Gly Cys Gln Arg Ile Thr Arg Lys Ser Cys Asn
215 65 70 75 80
216 Leu Thr Val Glu Thr Gly Asn Leu Thr Glu Leu Tyr Tyr Ala Arg Val
217 85 90 95
218 Thr Ala Val Ser Ala Gly Gly Arg Ser Ala Thr Lys Met Thr Asp Arg
219 100 105 110
220 Phe Ser Ser Leu Gln His Thr Thr Leu Lys Pro Pro Asp Val Thr Cys
221 115 120 125
222 Ile Ser Lys Val Arg Ser Ile Gln Met Ile Val His Pro Thr Pro Thr
223 130 135 140
224 Pro Ile Arg Ala Gly Asp Gly His Arg Leu Thr Leu Glu Asp Ile Phe
225 145 150 155 160
226 His Asp Leu Phe Tyr His Leu Glu Leu Gln Val Asn Arg Thr Tyr Gln
227 165 170 175
228 Met His Leu Gly Gly Lys Gln Arg Glu Tyr Glu Phe Phe Gly Leu Thr
229 180 185 190
230 Pro Asp Thr Glu Phe Leu Gly Thr Ile Met Ile Cys Val Pro Thr Trp
231 195 200 205
232 Ala Lys Glu Ser Ala Pro Tyr Met Cys Arg Val Lys Thr Leu Pro Asp
233 210 215 220
234 Arg Thr Trp Thr Tyr Ser Phe Ser Gly Ala Phe Leu Phe Ser Met Gly
235 225 230 235 240
236 Phe Leu Val Ala Val Leu Cys Tyr Leu Ser Tyr Arg Tyr Val Thr Lys
237 245 250 255
238 Pro Pro Ala Pro Pro Asn Ser Leu Asn Val Gln Arg Val Leu Thr Phe
239 260 265 270
240 Gln Pro Leu Arg Phe Ile Gln Glu His Val Leu Ile Pro Val Phe Asp
241 275 280 285
242 Leu Ser Gly Pro Ser Ser Leu Ala Gln Pro Val Gln Tyr Ser Gln Ile
243 290 295 300
244 Arg Val Ser Gly Pro Arg Glu Pro Ala Gly Ala Pro Gln Arg His Ser
245 305 310 315 320

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001

TIME: 13:28:58

Input Set : A:\00-56.txt

Output Set : N:\CRF3\08162001\I925055.raw

```

246 Leu Ser Glu Ile Thr Tyr Leu Gly Gln Pro Asp Ile Ser Ile Leu Gln
247           325           330           335
248 Pro Ser Asn Val Pro Pro Pro Gln Ile Leu Ser Pro Leu Ser Tyr Ala
249           340           345           350
250 Pro Asn Ala Ala Pro Glu Val Gly Pro Pro Ser Tyr Ala Pro Gln Val
251           355           360           365
252 Thr Pro Glu Ala Gln Phe Pro Phe Tyr Ala Pro Gln Ala Ile Ser Lys
253           370           375           380
254 Val Gln Pro Ser Ser Tyr Ala Pro Gln Ala Thr Pro Asp Ser Trp Pro
255           385           390           395           400
256 Pro Ser Tyr Gly Val Cys Met Glu Gly Ser Gly Lys Asp Ser Pro Thr
257           405           410           415
260 Gly Thr Leu Ser Ser Pro Lys His Leu Arg Pro Lys Gly Gln Leu Gln
261           420           425           430
262 Lys Glu Pro Pro Ala Gly Ser Cys Met Leu Gly Gly Leu Ser Leu Gln
263           435           440           445
264 Glu Val Thr Ser Leu Ala Met Glu Glu Ser Gln Glu Ala Lys Ser Leu
265           450           455           460
266 His Gln Pro Leu Gly Ile Cys Thr Asp Arg Thr Ser Asp Pro Asn Val
267           465           470           475           480
268 Leu His Ser Gly Glu Gly Thr Pro Gln Tyr Leu Lys Gly Gln Leu
269           485           490           495
270 Pro Leu Leu Ser Ser Val Gln Ile Glu Gly His Pro Met Ser Leu Pro
271           500           505           510
272 Leu Gln Pro Pro Ser Gly Pro Cys Ser Pro Ser Asp Gln Gly Pro Ser
273           515           520           525
274 Pro Trp Gly Leu Leu Glu Ser Leu Val Cys Pro Lys Asp Glu Ala Lys
275           530           535           540
276 Ser Pro Ala Pro Glu Thr Ser Asp Leu Glu Gln Pro Thr Glu Leu Asp
277           545           550           555           560
278 Ser Leu Phe Arg Gly Leu Ala Leu Thr Val Gln Trp Glu Ser
279           565           570
281 <210> SEQ ID NO: 3
282 <211> LENGTH: 211
283 <212> TYPE: PRT
284 <213> ORGANISM: Homo sapiens
286 <400> SEQUENCE: 3
287 Pro Glu Asp Pro Ser Asp Leu Leu Gln His Val Lys Phe Gln Ser Ser
288   1           5           10           15
289 Asn Phe Glu Asn Ile Leu Thr Trp Asp Ser Gly Pro Glu Gly Thr Pro
290           20           25           30
291 Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr Gly Glu Arg Asp Trp
292           35           40           45
293 Val Ala Lys Lys Gly Cys Gln Arg Ile Thr Arg Lys Ser Cys Asn Leu
294           50           55           60
295 Thr Val Glu Thr Gly Asn Leu Thr Glu Leu Tyr Tyr Ala Arg Val Thr
296           65           70           75           80
297 Ala Val Ser Ala Gly Arg Ser Ala Thr Lys Met Thr Asp Arg Phe
298           85           90           95

```

<210> 30
 <211> 484
 <212> PRT
 <213> Artificial Sequence
 <400> 30

Erroneous Field 223 is required
 When 213 response is Artificial Sequence,
 A ~~man~~ mandatory description or explanation
 is required in field 223.

The type of errors shown ^{may} exist throughout
 the Sequence Listing. Please check subsequent
 sequences for similar errors.

VERIFICATION SUMMARY

DATE: 08/16/2001

PATENT APPLICATION: US/09/925,055

TIME: 13:28:59

Input Set : A:\00-56.txt

Output Set: N:\CRF3\08162001\I925055.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1093 M:258 W: Mandatory Feature missing, <220> FEATURE:

L:1093 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: